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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,183	02/11/2002	Tadahiro Kegasawa	Q68442	2983

23373 7590 03/17/2004

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EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/071,183

Applicant(s)

KEGASAWA ET AL.

Examiner

Barbara J. Musser

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 7-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/7/02, 4/16/02</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-6, drawn to a method of forming a film having a different resin the edge than at the center, classified in class 264, subclass 173.16.
 - II. Claim 7, drawn to a method of forming a film having gas blown through the film, classified in class 156, subclass 244.11.
 - III. Claims 8-15, drawn to a laminate apparatus with a gas nozzle to blow air, classified in class 156, subclass 500.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as forming a film with a different polymer at the edges. See MPEP § 806.05(d).
3. Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as forming a film with a different polymer at the edges. See MPEP § 806.05(d).
4. Inventions II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP §

806.05(e)). In this case apparatus can be used with a different method such as extruding a film without using a support.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Paul Nyls on 2/26/04 a provisional election was made without traverse to prosecute the invention of group I, claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 2, 4, and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how the end resin layer can be both forming the ends and enveloped by the center resin at the ends since when it is enveloped, the center resin enveloping the end resin forms the ends. It is unclear what is meant by "the later resin" as it has no antecedent basis in the claim. It is unclear whether the end resin is already enveloped by the center resin after it exits the die or before it does. It is suggested that these claims be re-written in independent form as it appears applicant is mixing species as depicted in Figures 3A and 3B.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claim 3 rejected under 35 U.S.C. 102(b) as being anticipated by Peiffer et al.(U.S Patent 5,716,570).

Peiffer et al. discloses a method of forming a resin film where the ends of the film are formed from a different material than the center of the film.(Figure 3; Abstract) The resin forming the ends of the film can be made of a material with a melt flow rate lower than that of the center resin.(Col. 5, ll. 15-28)

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cloeren(U.S. Patent 5,120,484) in view of Thompson(U.S. Patent 4,272,312), and Gruber et al.(U.S. Patent 5,594,095)

Cloeren discloses a method of forming a film by extruding a different resin at the edges of the film than in the center.(Figure 1) The viscosities of the material can be different.(Col. 2, ll. 34-38) The reference does not disclose the extension viscosity of the edge resin being greater than that of the center resin. Neck-in is a well-known problem as taught by Thompson when extruding films where the resin at the edges forms undesirable beads. This material often must be cut off.(Col. 1, ll. 53-60) Since the invention of Cloeren is intended to retain these edge portions, one in the art would appreciate that neck-in would not be desirable. Thompson discloses that to reduce neck-in the edge resin should have a lower neck-in characteristic than the center resin(Col. 4, ll. 13-15) but it does not disclose what these characteristics are. Gruber et al. discloses that low extension viscosities make films that are prone to neck-in.(Col. 6, ll. 13-17) It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose resins so that the resin at the edges had a higher extension viscosity than the resin in the center since neck-in is undesirable particularly

when the edges are made of a different material and are intended to be part of the final product.

14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson, Gruber et al. and Mehra et al.(U.S. Patent 5,700,412)

Thompson discloses a method of forming a film by extruding a different resin at the edges of the film than in the center.(Figure 1) To reduce neck-in the edge resin should have a lower neck-in characteristic than the center resin(Col. 4, ll. 13-15) but the reference does not disclose what these characteristics are. Gruber et al. discloses that low extension viscosities make films that are prone to neck-in.(Col. 6, ll. 13-17) It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose resins so that the resin at the edges had a higher extension viscosity than the resin in the center since Thompson discloses using a resin with a lower neck-in characteristic at the edges and Gruber et al. discloses extension viscosity is a characteristic used to measure neck-in.

The references do not specifically state the edge resin is enveloped by the center resin. However, Thompson discloses the resins used are co-mingled at the edges.(Col. 4, ll. 35-38) The resins used in Thompson do not blend as shown by Mehra et al. which discloses that polyethylene is incompatible with polyethylene terephthalate and forms islands within polyethylene terephthalate.(Col. 3, ll. 30-34; 41-44) Islands are pockets of one resin surrounded by the main resin. Therefore, one in the art reading the references as a whole, would understand that the polyethylene forms islands within

polyethylene terephthalate rather than blending with it, forming regions of the edge resin near the edges which are enveloped by the center resin.

15. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cloeren in view of Thompson and Peiffer et al.

Cloeren discloses a method of forming a film by extruding a different resin at the edges of the film than in the center.(Figure 1) The viscosities of the material can be different.(Col. 2, ll. 34-38) The reference does not disclose the melt flow rate of the edge resin being greater than that of the center resin. Neck-in is a well-known problem as taught by Thompson when extruding films where the resin at the edges forms undesirable beads. This material often must be cut off.(Col. 1, ll. 53-60) Since the invention of Cloeren is intended to retain these edge portions, one in the art would appreciate that neck-in would not be desirable. Thompson discloses that to reduce neck-in the edge resin should have a lower neck-in characteristic than the center resin(Col. 4, ll. 13-15) but it does not disclose what these characteristics are. Peiffer et al. discloses that melt flow rate affects the neck-in of the resin since it indicates that the higher the melt flow rate of the edges is in comparison to the center, the thicker, i.e. more neck-in, there is. It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose resins so that the resin at the edges had a lower melt flow rate than the resin in the center since neck-in is undesirable particularly when the edges are made of a different material and are intended to be part of the final product.

16. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson, Peiffer et al. and Mehra et al.

Thompson discloses a method of forming a film by extruding a different resin at the edges of the film than in the center.(Figure 1) To reduce neck-in the edge resin should have a lower neck-in characteristic than the center resin(Col. 4, ll. 13-15) but the reference does not disclose what these characteristics are. Peiffer et al. discloses that melt flow rate affects the neck-in of the resin since it indicates that the higher the melt flow rate of the edges is in comparison to the center, the thicker, i.e. more neck-in, there is. It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose resins so that the resin at the edges had a lower melt flow rate than the resin in the center since Thompson discloses using a resin with a lower neck-in characteristic at the edges and Peiffer et al. discloses melt flow rate is a characteristic that can be used to determine neck-in and that lower melt flow rates have lower neck-in rates.

The references do not specifically state the edge resin is enveloped by the center resin. However, Thompson discloses the resins used are co-mingled at the edges.(Col. 4, ll. 35-38) The resins used in Thompson do not blend as shown by Mehra et al. which discloses that polyethylene forms islands within polyethylene terephthalate.(Col. 3, ll. 30-34; 41-44) Islands are pockets of one resin surrounded by the main resin. Therefore, one in the art reading the references as a whole, would understand that the polyethylene forms islands within polyethylene terephthalate rather than blending with it,

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forming regions of the edge resin near the edges which are enveloped by the center resin.

17. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cloeren in view of Thompson, Gruber et al., and Peiffer et al.

Cloeren discloses a method of forming a film by extruding a different resin at the edges of the film than in the center.(Figure 1) The viscosities of the material can be different.(Col. 2, ll. 34-38) The reference does not disclose the extension viscosity of the edge resin being greater than that of the center resin. Neck-in is a well-known problem as taught by Thompson when extruding films where the resin at the edges forms undesirable beads. This material often must be cut off.(Col. 1, ll. 53-60) Since the invention of Cloeren is intended to retain these edge portions, one in the art would appreciate that neck-in would not be desirable. Thompson discloses that to reduce neck-in the edge resin should have a lower neck-in characteristic than the center resin(Col. 4, ll. 13-15) but it does not disclose what these characteristics are. Gruber et al. discloses that low extension viscosities make films that are prone to neck-in(Col. 6, ll. 13-17) but does not disclose the relation of melt flow rate to neck-in.

One in the art would appreciate that while using one characteristic will provide a rough idea of materials that will work to reduce neck-in, using two or more characteristics used to define neck-in to determine the polymers used for the edge and center resins would increase the likelihood of obtaining a film with little neck-in. Peiffer et al. discloses that melt flow rate affects the neck-in of the resin since it indicates that the higher the melt flow rate of the edges is in comparison to the center, the thicker, i.e.

more neck-in, there is. It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose resins so that the resin at the edges had a lower melt flow rate than the resin in the center and so that the resin at the edges had a higher extension viscosity than the resin in the center since Thompson discloses using a resin with a lower neck-in characteristic at the edges and Gruber et al. and Peiffer et al. disclose characteristics that can be used to determine neck-in and since the use of two or more characteristics which relate to neck-in would increase the likelihood of obtaining a film with little neck-in.

18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson, Gruber et al., Peiffer et al., and Mehra et al.

Thompson discloses a method of forming a film by extruding a different resin at the edges of the film than in the center.(Figure 1) To reduce neck-in the edge resin should have a lower neck-in characteristic than the center resin(Col. 4, ll. 13-15) but the reference does not disclose what these characteristics are. Gruber et al. discloses that low extension viscosities make films that are prone to neck-in(Col. 6, ll. 13-17) but does not disclose the relation of melt flow rate to neck-in.

One in the art would appreciate that while using one characteristic will provide a rough idea of materials that will work to reduce neck-in, using two or more characteristics used to define neck-in to determine the polymers used for the edge and center resins would increase the likelihood of obtaining a film with little neck-in. Peiffer et al. discloses that melt flow rate affects the neck-in of the resin since it indicates that the higher the melt flow rate of the edges is in comparison to the center, the thicker, i.e.

more neck-in, there is. It would have been obvious to one of ordinary skill in the art at the time the invention was made to choose resins so that the resin at the edges had a lower melt flow rate than the resin in the center and so that the resin at the edges had a higher extension viscosity than the resin in the center since Thompson discloses using a resin with a lower neck-in characteristic at the edges and Gruber et al. and Peiffer et al. disclose characteristics that can be used to determine neck-in and since the use of two or more characteristics which relate to neck-in would increase the likelihood of obtaining a film with little neck-in.

The references do not specifically state the edge resin is enveloped by the center resin. However, Thompson discloses the resins used are co-mingled at the edges.(Col. 4, ll. 35-38) The resins used in Thompson do not blend as shown by Mehra et al. which discloses that polyethylene is incompatible with polyethylene terephthalate and forms islands within polyethylene terephthalate.(Col. 3, ll. 30-34; 41-44) Islands are pockets of one resin surrounded by the main resin. Therefore, one in the art reading the references as a whole, would understand that the polyethylene forms islands within polyethylene terephthalate rather than blending with it, forming regions of the edge resin near the edges which are enveloped by the center resin.

Conclusion

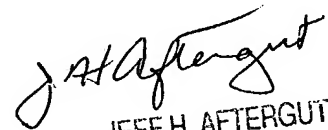
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is **(571)**

272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


BJM


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